

431.02 06/29/2000 Rev. 07 **ENGINEERING DESIGN FILE**

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Appendix B Site Selection Computer Model Setup and Results

 Table 1. Weights and Rankings Summary.

Goal	Weights	Criteria Level 1	Weights	Criteria Level 2	Weights	Criteria Level 3
SSSTF Site Selction	8	Location	3	Wind Blown Contamination		
			8	Adjacency to landfill unit		
			5	Access to/from existing roads		
			7	Brush Fire Exposure		
	7	Land Use/Zoning	8	Land use conflicts		
			10	Environmentally controlled area		
	5	Geology/Topography	3	Ground Water		
			6	Soil bearing capacity		
			10	Outside 100-yr flood plain		
			4	Sitework required		
	7	Environmental Impact	5	Erosion potential		
			7	Habitat and ecosystem disturbance		
	8	Space/Layout	10	Sufficient space		
			8	Evap Pond, land fill unit placement		
			8	Expansion potential		
	9	Utilities	10	Length	5	Potable Water
	 				5	Raw water
	 				5	Fire Water
	· · · · · · ·				5	Sewer
	1				5	Electrical power
					5	Telephone/data communications
					5	Fire Alarm
	6	Support Services Proximity	5	Bus transporatation		
	1 ~ ~		5	Cafeteria		
			3	Crafts/maintenance		
	+		3	Fuel Supply		
			6	Medical		

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 Table 2. Comparison and Rating of Siting Study Criteria.

Criteria and Subcriteria	Site 1	Site 2	Site 3
1) Location			
1a) Wind Blown Contamination	Below Average - Predominant wind direction has potential of blowing contaminants toward Site 1	Below Average - Predominant wind direction has potential of blowing contaminants toward Site 2	Good - Wind onloccasionally blonorth to south
Rating	2	2	4
1b) Adjacency to landfill unit	Excellent - This location is immediately to the north of the landfill unit	Excellent - This location is immediately to the east of the landfill unit	Average+ - This is several hundre from the north er 40-acre Landfill area
Rating	5	5	3.5
1c) Access to/from existing roads	Excellent - This location is ideally situated to take advantage of existing road tie-ins	Average - This location is would require an extension of West Perimeter Road	Above Average - location is would longer extension Perimeter Road I traffic from Linco farther from the I INTEC entrance
Rating	5	3	3
1d) Brush Fire Exposure	Average+ - Brush Fire exposure would be limited to one side	Below Average+ - Brush Fire exposure would be from three sides	Poor+ - Brush File exposure would be all sides but limit nearby roads
Rating	3.5	2.5	1.5
2) Land Use/Zoning			
2a) Land use conflicts	This site is an undisturbed area. No other facilities are currently planned for this area.	This site is an undisturbed area. No other facilities are currently planned for this area.	This site is an uncarea. No other fa are currently plan this area.
Rating	5	5	5
2b) Environmentally controlled area	This site does not overlap any documented environmentally controlled areas	This site overlaps one environmentally controlled area and borders another.	This site does not any documented environmentally
			controlled areas

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Table 2. (continued).

Criteria and Subcriteria	Site 1	Site 2	Site 3
3) Geology/Topography 3a) Ground Water	This site overlaps areas that have documented groundwater contamination	This site overlaps areas that have documented groundwater contamination	This site overlap that have docum groundwater contamination
Rating	1	1	1
3b) Soil bearing capacity	This site has excellent soil bearing capacity for the types of structures planned for the SSSTF	This site has excellent soil bearing capacity for the types of structures planned for the SSSTF	This site has exc bearing capacity types of structure for the SSSTF
Rating	5	5	5
3c) Outside 100-year flood plain	This site is completely outside the USGS defined 100-yr flood plain	This site is completely outside the USGS defined 100-yr flood plain	This site is compoutside the USG 100-yr flood plan
Rating	5	5	5
3d) Site work required	This site is relatively flat and would require very little site work	This site has large soil berms that must be removed prior to construction. A moderate amount of road construction would be required.	This site would r substantial road construction
Rating	5	2.5	1.5
4) Environmental Impact			
4a) Erosion potential	Build up of the site and drainage ditches are required to provide proper drainage. Soil fill is readily available. This site may see marginally more run-off due to the close proximity of additional existing roads.	Build up of the site and drainage ditches are required to provide proper drainage. Soil fill is readily available.	Build up of the s drainage ditches required to provi drainage. Soil fi readily available
Rating	3.5	4	4
4b) Habitat and ecosystem disturbance	Disturbance at this site would be minimal	Disturbance at this site would be minimal	Disturbance at the would be minimate
Rating	5	5	5

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 Table 2. (continued).

Criteria and Subcriteria	Site 1	Site 2	Site
5) Space/Layout 5a) Sufficient Space	There is adequate space for initial planned operations	There is adequate space for initial planned operations	There is adequator initial plans operations
Rating	5	5	5_
5b) Evap Pond, land fill unit placement			
Rating	4	3	2
5c) Expansion potential	The expansion potential is somewhat limited due to the flood plain boundary on the north and the landfill unit on the south	The expansion potential is somewhat limited due to the former perc ponds on the east and the potential siting of the evap ponds on the south	The expansion somewhat limit the AOC bound expansion to th would be likely due to possible unit expansion
Rating	3.5	3.5	3.5
6) Utilities			
6a) Length	Shortest line lengths of all the proposed sites	Slightly longer utility runs than Site 1	Extremely long runs especially considering the looping require
Rating	5	4	1.5
7) Support Services Proximity	This site is farthest from CFA Support Services, but not significantly farther than Site 3	This site is second closest to CFA Support Services	This site is clos Support Service
Rating	4	4.5	5